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Autologous Cytotoxic T-lymphocytes Induced with MUC1 Peptide-pulsed Dendritic Cells

National Cancer Institute

Source

National Cancer Institute. *Autologous Cytotoxic T-lymphocytes Induced with MUC1 Peptide-pulsed Dendritic Cells*. NCI Thesaurus. Code C124998.

A preparation of autologous cytotoxic T-lymphocytes (CTL), specifically reactive to the tumor-associated antigen (TAA) mucin-1 (MUC1), with potential antineoplastic activity. Peripheral blood mononuclear cells (PBMCs) are collected from the patient with MUC1-positive tumors and are exposed ex vivo to dendritic cells (DCs) that are pulsed with a MUC1 peptide to generate MUC1-specific CTLs, which are subsequently expanded in vitro. Upon re-infusion of autologous CTLs induced with MUC1 peptide-pulsed DCs to the patient, the CTLs target and lyse the MUC1-expressing tumor cells. This inhibits tumor cell proliferation. MUC1 is expressed by a variety of tumor cell types.